

COMPRESSOR DEFINITION

Designation	EM T6144Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	194PA67

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°F to 50°F)	
5 Motor type	CSIR		
6 Starting torque	HST - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating (gauge)	14.2	[kgf/cm²] (202 psig)	/ °C - °F
9.2 Peak (gauge)	15.9	[kgf/cm²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	5.19	[cm³] (0.317 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	7.8	[kg] (17.20 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-34	
3 Start capacitor	43-53(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0827/G6	
6 Start winding resistance	[Ω at 25°C (77°F)] +/- 8%	
7 Run winding resistance	[Ω at 25°C (77°F)] +/- 8%	
8 LRA - Locked rotor amperage (50 Hz)	8.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°F) 54.4°C (129.92°F))	
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
1968	496	577	222	1.38	12.76	8.86	2.23	2.60

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE46 Fan			(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15	(+ 5)	986	248	289	131	1.08	5.33	7.53	1.90	2.21
-10	(+14)	1242	313	364	142	1.11	6.74	8.73	2.20	2.56
-5	(+23)	1542	389	452	154	1.14	8.40	10.04	2.53	2.94
0	(+32)	1890	476	554	165	1.17	10.34	11.45	2.89	3.36
+5	(+41)	2288	577	670	176	1.21	12.59	12.99	3.27	3.81
+10	(+50)	2740	690	803	187	1.24	15.17	14.66	3.69	4.29

TEST CONDITIONS: @220V50Hz			ASHRAE46 Fan			(Condensing temperature 45°C (+113°F))				
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15	(+ 5)	863	218	253	140	1.10	5.04	6.18	1.56	1.81
-10	(+14)	1094	276	321	153	1.14	6.42	7.14	1.80	2.09
-5	(+23)	1367	345	401	167	1.18	8.05	8.18	2.06	2.40
0	(+32)	1685	425	494	181	1.22	9.97	9.31	2.35	2.73
+5	(+41)	2052	517	601	195	1.27	12.21	10.53	2.65	3.09
+10	(+50)	2469	622	724	208	1.31	14.80	11.87	2.99	3.48

TEST CONDITIONS:		ASHRAE46		(Condensing temperature 55°C (+131°F))							
@220V50Hz		Fan									
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15	(+ 5)	746	188	219	148	1.12	4.75	5.04	1.27	1.48	
-10	(+14)	948	239	278	164	1.18	6.06	5.78	1.46	1.69	
-5	(+23)	1189	300	348	181	1.24	7.64	6.58	1.66	1.93	
0	(+32)	1473	371	432	198	1.30	9.52	7.44	1.87	2.18	
+5	(+41)	1803	454	528	215	1.36	11.72	8.38	2.11	2.46	
+10	(+50)	2182	550	639	232	1.43	14.29	9.41	2.37	2.76	

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	4.86 +0.07/+0.00	[mm]	(0.191" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		